

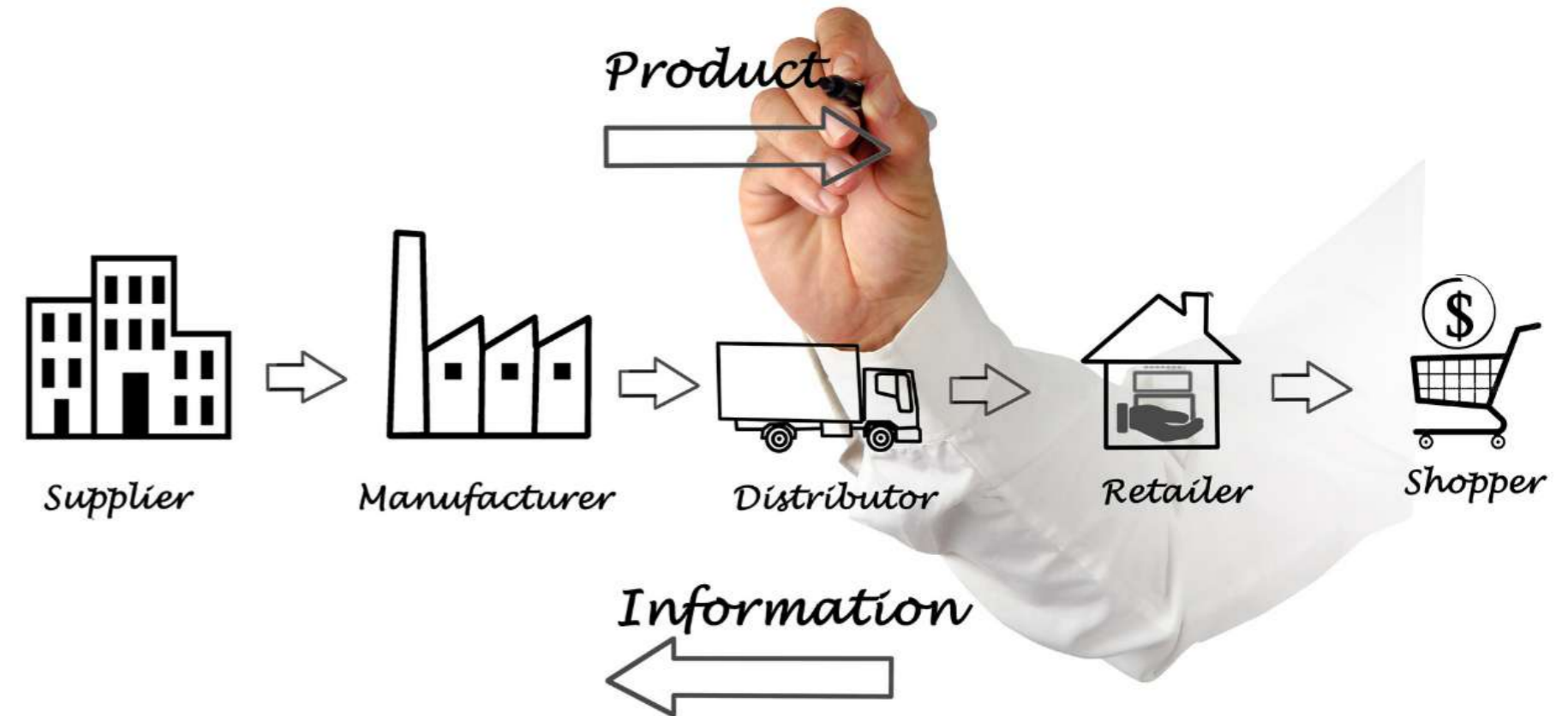


DIGITISING FUTURE PROOF GLOBAL SUPPLY CHAINS

ABSTRACT

The wave of digital transformation that hit the world about a decade ago has brought far-reaching impacts on the business environment. It not only holds the promise of enhanced performance and productivity but also enables innovation and makes business processes cost-effective and efficient. The forecast is that the global digital transformation spending will reach US\$ 2.8 trillion by 2025 ⁽⁷⁾, a figure that is enough to highlight the sheer inevitability of digitisation.

Global supply chains have experienced wide-ranging implications of digitisation, albeit in a constructive way. Moreover, the shift of brick-and-mortar stores to the online space has made the e-commerce landscape highly competitive. The main challenge of e-commerce retailers is how to meet evolving consumer expectations while remaining profitable. Well, the answer lies in supply chain digitisation.



SUPPLY CHAIN DIGITISATION



Digitising the supply chain means digitally transforming analogue supply chain processes. It is done by establishing a central data repository that gathers information from across the entire supply chain and from external sources such as point-of-sale consumer data, sales data, socio-economic data, and the like. Digitised supply chains use advanced technologies, automation, and analytics to better understand the functions of each participant along the chain. A comprehensive digital supply chain comprises processes starting from demand planning and asset management to order fulfilment, including data mining from those processes.

The pre-digitisation approach relied on individual supply chain steps, trusting the linear process to progress as expected. However, a failure at one step would often go unnoticed, eventually resulting in delayed delivery and unsatisfied customers. In contrast, a digitised supply chain offers more clarity and transparency into every step along the chain. By integrating external information with internal systems and data, digital supply chains ensure that all stakeholders have complete visibility into the supply chain processes.

E-COMMERCE AND SUPPLY CHAIN DIGITISATION

The emergence and evolution of trends such as big data, artificial intelligence (AI), machine learning, e-commerce, and the Internet of Things (IoT) have underscored the productivity benefits of digitisation. Moreover, with easy availability and access to tools and solutions, digital transformation is an industry standard. In particular, supply chain digitisation has caught the attention of e-commerce retailers in overcoming two of the biggest industry challenges, namely, increasing speed to market and improving customer experience.

E-commerce is more than just an online presence. Successful e-commerce involves a system that enables retailers to get their products to customers on time and at minimum cost while maintaining quality and integrity. Thus, e-commerce retailers need a supply chain management plan that sets their brand apart and increases profitability while improving customer experience.

For instance, more than 90% of consumers consider the 2-3 days delivery as the standard, and 30% expect same-day delivery⁽⁶⁾. It is pretty challenging to meet these expectations without a future-proof and efficient supply chain to ensure logistics and inventory are in place. A future-proof supply chain will not become outdated and is flexible enough to accommodate new and emerging technologies and strategies. From a long-term perspective, a future-proof supply chain enables e-commerce retailers to automate and digitise as and when required without repeatedly overturning the entire technology setup.




BENEFITS OF DIGITISING SUPPLY CHAIN

Improved customer experience and increased speed to market are not the only benefits that digitised supply chains bring to the table. Supply chain digitisation is a positive force in e-commerce that shifts the supply chain narrative from a cost centre to a driver of profitability, productivity, and competitive advantage.

The pointers below give an overview of why a digitised supply chain is critical to business, including e-commerce.

Moreover, digitised supply chains offer real-time visibility across the entire supply chain. Thus, e-commerce businesses have ample data at their disposal to make informed decisions about their supply chain. In turn, data-driven decision-making provides decision-makers and stakeholders with a greater degree of control and planning over supply chain processes.




Improved customer experience




Lower operational costs



Quick response to supply chain failures



Faster adaptability to changing market scenarios




Improved customer loyalty



Increased speed to market



Higher profit margins



Minimum human intervention

STRATEGIES TO FUTURE-PROOF SUPPLY CHAINS THROUGH DIGITISATION

1 Automate at scale

Automation at scale is a crucial factor underlying business process digitisation. The use of automation in various supply chain steps reduces manual labour. It allows the workforce to focus on customer-centric activities such as better product design and reevaluating strategies based on real-time customer feedback.

2 Shift to the cloud

It is challenging to achieve automation at scale without the requisite infrastructure. However, cloud-hosted architecture eliminates most shortcomings of on-premise technology, such as security, data storage, and scalability. Shifting to the cloud allows unlimited scalability without increasing costs. Also, a [forecast^{\(5\)}](#) shows that the adoption of cloud computing has the potential to avert more than 1 billion metric tons of carbon dioxide.

3 Implement data-driven decision

Data-driven business operations play a pivotal role in insightful decision-making across the supply chain. Digital technology advancements coupled with powerful analytics allow quick and easy access to data at every step of the supply chain. Thus, data connectivity enables businesses to be more agile, foresightful, responsible, and resilient.

4 Adopt headless architecture

Headless architecture is a platform or application where the presentation layer is separate from the backend services. In e-commerce, headless architecture is an extension of headless CMS, a platform without a tightly-coupled, default front-end layer. Headless architecture makes e-commerce interfaces scalable and flexible. It allows more freedom of customisation to developers and users, supports omni-channel strategy, and makes the addition of front-end elements simpler and faster.

The Bottom Line

An increasing number of businesses are digitising their supply chain operations to streamline business processes and gain a competitive advantage. However, digital adoption is only the bare minimum to stay relevant and ahead in the ever-changing e-commerce landscape. The zeal to capitalise on big data must be accompanied by the appropriate infrastructure and talent pool. Hence, the need of the hour is to redefine the approach to e-commerce with a future-proof strategy centred around digitisation.



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